

THE CLAIMS

What is claimed is:

- 5 1. A pharmaceutical composition comprising a therapeutically effective amount of tetrasilver tetroxide, or a pharmaceutically acceptable derivative thereof, substantially free of added persulfate.
2. The pharmaceutical composition of claim 1, wherein the amount is
10 from about 50 ppm to 500,000 ppm.
3. The pharmaceutical composition of claim 1, wherein the amount is from about 400 ppm to 100,000 ppm.
- 15 4. The pharmaceutical composition of claim 1, further comprising a carrier such that the composition is adapted for topical or transdermal administration.
5. The pharmaceutical composition of claim 4, adapted for topical administration and wherein the carrier comprises petroleum jelly.
- 20 6. The pharmaceutical composition of claim 4, adapted for topical administration and further comprising a thixotropic agent sufficient to increase adherence of the composition to skin without excessive runoff.
- 25 7. The pharmaceutical composition of claim 1, in the form of a powder or a plurality of powder crystals or granules.
8. A method for preventing, treating, or managing one or more dermatological skin diseases in a patient's skin, which comprises administering tetrasilver
30 tetroxide, or a pharmaceutically acceptable derivative thereof, which is substantially free of added persulfate, to the skin in an amount and for a period of time which is therapeutically effective to treat such condition(s).
9. The method of claim 8, further comprising a carrier medium in which
35 the tetrasilver tetroxide, or a derivative thereof, is dispersed, wherein the therapeutically

effective amount is from about 50 ppm to 500,000 ppm, based on the weight of the carrier medium.

10. The method of claim 9, wherein the carrier medium comprises
5 petroleum jelly.

11. The method of claim 8, wherein the tetrasilver tetroxide, or a pharmaceutically acceptable derivative thereof, is administered in the form of a powder.

10 12. The method of claim 9, wherein the therapeutically effective amount is from about 400 ppm to 100,000 ppm.

13. The method of claim 9, wherein the administering is topical, parenteral, or transdermal.

15 14. The method of claim 13, wherein the composition is topically administered directly to the skin.

15. The method of claim 14, wherein the tetrasilver tetroxide
20 composition, or a pharmaceutically acceptable derivative thereof, further comprises a thixotropic agent sufficient to increase adherence of the composition to the skin without excessive runoff.

16. The method of claim 14, wherein the skin disease is caused by a non-
25 pathogenic condition comprising one or more of an autoimmune condition, a circulatory condition, or a neurological condition.

17. The method of claim 8, wherein the skin disease prevented, treated, or managed comprises at least one of eczema, psoriasis, dermatitis, ulcers, shingles, rashes,
30 bedsores, cold sores, blisters, boils, herpes, acne, pimples, skin chafing, skin cracking, skin itch, skin peeling, heat rashes, leprosy, dermal tuberculosis, and warts.

18. The method of claim 17 wherein the disease prevented, treated, or managed is one or more of cold sores, herpes, shingles, acne, psoriasis, dermatitis, skin
35 ulcers, heat rashes, leprosy, dermal tuberculosis, or eczema.

19. The method of claim 18, wherein the disease is psoriasis, skin ulcers, heat rashes, leprosy, dermal tuberculosis, or atopic dermatitis.

20. The method of claim 8, wherein the tetrasilver tetroxide, or a
5 pharmaceutically acceptable derivative thereof, is completely free of added persulfate.

21. The method of claim 8, wherein the administering comprises application of the tetrasilver tetroxide, or a pharmaceutically acceptable derivative thereof, to the skin at a dosage level of about 10 mg to 500 mg per cm² of skin surface.
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22. The method of claim 8, wherein the amount is insufficient to cause adverse effects.

23. A method for preventing, treating, or managing one or more non-
15 pathogenic, dermatological skin conditions, which comprises administering tetrasilver tetroxide, or a pharmaceutically acceptable derivative thereof, to the skin in an amount and for a period of time which is therapeutically effective to treat such condition(s).

24. The method of claim 23, wherein the non-pathogenic, dermatological
20 skin condition comprises an autoimmune disorder, a neurological condition, a circulatory condition, or a combination thereof.

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